

**Please insert the following Abstract:**

The biological water or wastewater treatment process described herein alternates aeration and anoxic phases during a water treatment process. According to one exemplary process, the water or wastewater is directed into a biological tank. The water or wastewater in the biological tank is aerated until measured nitrate or redox values meet high nitrate or high redox set value conditions relative to minimum aeration and maximum aeration time requirements. Subsequently, the water or wastewater is subjected to anoxic treatment until the measured nitrate value meets low nitrate set value conditions relative minimum and maximum anoxia time requirements.